

## **REMARKS**

### **The Invention.**

The present invention provides a novel cellulase referred to as mHKcel, to the use of the novel cellulase in compositions, including, as an additive in a detergent composition, in the treatment of cellulose containing fabrics, in the treatment of pulp and paper and in the treatment of starch for the production of high fructose corn-syrup or ethanol.

### **Status of the Application.**

Claims 15-16, 21 and 25-29 are pending in the application. Claims 1-14, 17-20, 22-24, 29 and 30-34 have been cancelled as drawn to a non-elected invention without prejudice and Applicants reserved the right to file further continuation applications on any subject matter disclosed in the instant application or on the subject matter of any previously or presently cancelled claim. Claims 15, 16, 21 and 25 have been amended to clarify what Applicants consider the present invention. Applicants assert new matter has not been introduced by the amendment.

### **Information Disclosure Statement (IDS).**

The Office Action states that there is not an IDS in this application. Applicants filed an IDS on July 12, 2007. Upon review of the application image file wrapper on PAIR it was noted that the IDS was received on July 16, 2007, as evidenced by the date stamp. Withdrawal of the objection is respectfully requested.

### **Drawings.**

The Office Action states that there is not any drawing in this application. This is not correct; there are five (5) pages of drawings. Applicants filed a copy of the International Patent Publication WO 2004/099370, including the drawings. However, upon review of the application on PAIR Applicants note that the drawings were misidentified, having been labeled as "Sequence Listing".

In order to facilitate the prosecution of the present application, Applicant is submitting concurrently herewith a duplicate copy of the drawings as filed. Withdrawal of the objection is respectfully requested.

**Claim Objections.**

**Claim 34**

The numbering of the claims is not in accordance with 37 CFR 1.126 because "the last claim number should be 34 not 33, because the previous claim of the last claim is 33." See page 4 of the Office Action. Applicants have amended the claim to read Claim 34, not 33, rendering this objection moot. Withdrawal is respectfully requested.

**Claims 15 and 16**

Claims 15 and 16 are objected to in the recitation "mHKCeI". Applicants have amended the claims rendering moot this objection. Withdrawal is respectfully requested.

**Claims 21**

Claim 21 is objected to as depending from non-elected claims. Applicants have amended the claims rendering moot this objection. Withdrawal is respectfully requested.

**Claim 16**

Claim 16 is objected to in the recitation of "The". Applicants have amended the claims rendering moot this objection. Withdrawal is respectfully requested.

**35 U.S.C. §112, first paragraph.**

**Claim 16**

Claim 16 stands rejected under 35 USC §112, first paragraph as allegedly containing subject which was not described in the specification in such a way as to convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant respectfully traverses.

Applicants have amended claim 16 to recite that the cellulase comprises the amino acid sequence presented in Figure 3 (SEQ ID NO:3).

Claims 25, 27 and 28

Claims 25, 27 and 28 stand rejected under 35 USC §112, first paragraph as allegedly containing subject which was not described in the specification in such a way as to convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant respectfully traverses.

Applicants have amended claim 25 to recite that the cellulase comprises a polypeptide having greater than 95% identity to the amino acid sequence presented in Figure 3 (SEQ ID NO:3). Claims 27 and 28 depend from claim 25.

Claims 15, 16, 21 and 25-29

Claims 15, 16, 21 and 25-29 stand rejected under 35 USC §112, first paragraph as allegedly containing subject which was not described in the specification in such a way as to enable one skilled in the art how to make and use the claimed invention commensurate in scope with these claims. Applicant respectfully traverses.

Applicants have amended claims 15, 16, 21 and 25. Claims 27 and 28 depend from claim 25. The amendments render this rejection moot.

For the foregoing reasons, Applicants submit that the claims overcome the rejections under 35 USC §112. Applicants respectfully request reconsideration and withdrawal of the rejections.

**35 U.S.C. §112, second paragraph.**

Claims 15, 16, 21 and 25-29

Claims 15-16, 21, 25-28 and 29 are rejected under 35 USC §112, second paragraph as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner asserts that Claims 15-16 and 25 (and claims 21, 26-28 and 29 as depending from claims 15 and/or 25) are indefinite and vague in the recitation of the phrase "substantially purified". Applicants respectfully traverse.

Applicants have amended claims 15, 16 and 25 to recite that to a "purified" polypeptide. Support for the amendment may be found, for example, at page 9, paragraph [53]. No new matter is introduced by this amendment. Withdrawal is respectfully requested.

Claims 15, 16, 21 and 25-29

Claims 15-16, 21, 25-28 and 29 are rejected under 35 USC §112, second paragraph as being indefinite in the recitation of "biologically active fragment" as it is unclear what the scope of activities that is encompassed by this term. Applicants respectfully traverse.

Definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. *See, e.g., Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 53 U.S.P.Q.2d 1225 (Fed. Cir. 1999), "it is well-established that the determination whether a claim is invalid as indefinite 'depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification.'" quoting *North Am. Vaccine Inc. v. American Cyanamid Co.*, 7 F.3d 1571, 1579 (Fed. Cir. 1993). *See also, Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.*, 401 F.3d 1367, 1371 (Fed. Cir. 2005), wherein the Federal Circuit overturned an invalidity decision, concluding that "one of ordinary skill in the art would readily ascertain from the written description of the patents that the "transverse sectional dimension" calls for a two-dimensional measurement."

An important consideration is whether the terms in a claim adequately define to one skilled in the art the metes and bounds of the claim. Here, Applicants have provided a definition readily understood by the skilled artisan. At page 12, paragraph [67] Applicants have provided a definition for "biologically active". Furthermore, one skilled in the art would readily understand what a "fragment" is and what a "biologically active fragment" is. Withdrawal is respectfully requested.

Claim 16

Claim 16 stand rejected under 35 USC §112, second paragraph as being indefinite and vague for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner asserts that the recitation of "a derivative" in the context of a polypeptide having cellulose activity is confusing. Applicants respectfully traverse.

Applicants have amended claim 16 rendering this rejection moot. Withdrawal is respectfully requested.

**35 U.S.C. §102**

A reference that merely contains substantially the same elements or only broadly teaches the invention is insufficient to establish anticipation. *Jamesbury Corp. v. Litton Industrial Products, Inc.*, 756 F.2d 1556, 1560, 225 USPQ 253, 256 (Fed. Cir. 1985); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983).

**35 U.S.C. §102(b).**

Claims 15, 16, 21 and 25-28 stand rejected under 35 USC §102(b) as being anticipated by Schulein *et al.* (US Patent 6,268,197 B1, publication 7/31/2001). Specifically, the Examiner asserts that Schulein *et al.* teaches a polypeptide (SEQ ID NO:4 in the '197 patent) having xyloglucanase activity, a cellulose from *Bacillus agaradhaerens* having 90.1% identity to SEQ ID NO:3 of the instant application. Applicants respectfully traverse.

The alignment provided by the Examiner was done using the FastSEQ software, not the ClustalW program recited in the claims. Applicants are attaching hereto a ClustalW alignment. It will be noted that the alignment using the ClustalW program has a 89% sequence identity.

Given the strict standards for anticipation, it is readily apparent that there is no anticipation of the claimed invention in view of Schulein *et al.* Applicants respectfully request reconsideration and withdrawal of the rejection.

**35 U.S.C. §103.**

The Examiner has rejected claim 29 as allegedly obvious over Schulein, *et al.* and further in view of Bedford *et al.* (US Patent 6,562,340, publication 5/13/2003, which is a continuation of US application 08/169,948 filed Dec 17, 1993). Applicant respectfully traverses the rejection.

Applicants have cancelled claim 29 rendering this rejection moot. Withdrawal is respectfully requested.

**CONCLUSION**

In light of the above amendments, as well as the remarks, the Applicants believe the pending claims are in condition for allowance and issuance of a formal Notice of Allowance at an early date is respectfully requested. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 846-7615.

Respectfully submitted,  
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